Balantidium coli in the Urinse Sediment

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Introduction

Balantidium coli is a ciliated protozoa which can infect humans. Although the infection is uncommon, it tends to be more frequent in the tropics and subtropical regions. It is often asymptomatic but may present with gastrointestinal symptoms. Few cases of urinary balantidiasis have been reported [1,2] but faecal contamination could cause diagnostic dilemma.

Clinical Image

We report Balantidium coli in urine sediment from a 59-year-old woman who was seen in a Hospital at Porto Alegre (Rio Grande do Sul, Brazil), which serves a large rural and urban population. On March 20, 2009 the asymptomatic patient of low social class presented with a clinical history of uterine cervix carcinoma, obstructive uropathy (which required a permanent bilateral ureteric stenting) and recurrent urinary tract infection. She was admitted to our center for a general check-up.

The centrifuged urinary sediment (analyzed with a bright field microscope) contained many leukocytes and bacteria intermixed with mites, yeasts, Fusarium fungi and a large number of a ciliated protozoa, whose morphology and rapid movements through the slide were all consistent with trophozoites and cysts of Balantidium coli (Figure 1). All these findings were confirmed in a new sample supplied in the afternoon of the same day. There was no specific treatment for this cause diagnostic dilemma.

The finding of a large variety of microorganisms in the first two samples, coupled with the incorrect urine collection procedures used and the low social class of the patient, strongly suggest that the urine was heavily contaminated by particles coming from both the environment (eg, Fusarium fungi, which may exist in the soil of potted plants in hospital) [4] and/or the patient herself (eg, mites from pubis or perianal area [5], Balantidium coli from feces).

Maino et al. [1] reported urinary balantidiasis in an immunocompromised patient [1], while our case demonstrates just contamination. Various protozoa and helminthes can occasionally be found on urine sediment following contamination from faces in the infested person or the environment [5]. Clear instructions must be given to patients on proper urine sample collection to avoid confusion on diagnosis.

References


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